PATENT APPLICATION

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re the application of: Attorney Docket No.: 2508.16US07

Neuman, et al.

Continuation of
Application No.: 09/408,508

Filed: Herewith

For: METHOD FOR INDUCING DNA SYTHESIS IN NEURONS

PRELIMINARY AMENDMENT

Assistant Commissioner for Patents
Washington, D.C. 20231

Sir:

Prior to examination, please amend the above-identified application as follows:

In the Claims

Claims 20, 22-27, 29-36, 50-51 and 53-61 were allowed in the parent application.

Please add new claims 62-85 as follows:

62. A method for inducing nucleic acid synthesis in a glial cell comprising:

obtaining at least one vector comprising nucleic acid encoding a desired protein and an E2F regulator or an E1A regulator, or both an E2F regulator and an E1A regulator.

63. A method as in claim 62, wherein the vector(s) are associated with immunoliposomes.

64. A method as in claim 62 wherein the vector(s) comprise pRcCMV.

65. A method as in claim 64, wherein the vector(s) comprise the E2F regulator.

66. A method as in claim 64, wherein the vector(s) comprise the E2F2 regulator.

67. A method as in claim 64, wherein the vector(s) comprise the E1A regulator.

68. A method for integrating DNA encoding a desired protein in a glial cell comprising: obtaining a vector comprising nucleic acid encoding an E2F regulator , an E1A regulator, or both an E2F regulator and an E1A regulator, wherein the vector can be used to express the DNA encoding a desired protein in a glial cell;

obtaining DNA encoding a desired protein; and

cotransfecting a glial cell with the vector and the DNA encoding the desired protein such that the DNA encoding the desired protein is integrated in the glial cell and the desired protein is produced.

69. A method as in claim 68, wherein the vector is included in immunoliposomes.

70. A method as in claim 68, wherein the desired protein is a neurotrophic factor.

71. A method as in claim 68, wherein the desired protein is retinoblastoma.

72. A method as in claim 68, wherein the vector comprises nucleic acid encoding both an E2F regulator and an E1A regulator.

73. A method as in claim 68, wherein the vector comprises nucleic acid encoding E2F regulator.

74. A method as in claim 68, wherein the vector comprises nucleic acid encoding E2F1 regulator.

75. A method as in claim 68, wherein the vector comprises nucleic acid encoding E1A regulator.

76. A method as in claim 68, wherein the desired protein is retinoblastoma.

77. A method as in claim 76, wherein the glial cell is a glioma.

78. An improved method of inducing a glial cell to express DNA encoding a desired protein of the type wherein the DNA encoding the desired protein is introduced into the glial cell, the improvement comprising:

cotransfecting the DNA encoding the desired protein with nucleic acids encoding at least one of the members of the group consisting of E2F and E1A.

79. The method of claim 78 wherein the E2F is chosen from the group consisting of E2F1, E2F2, and E2F3.

80. A method for integrating DNA encoding a desired protein into a glial cell, the method comprising co-transfecting a glial cell with DNA encoding a desired protein and DNA encoding either (a) an E2F regulator, (b) an E1A regulator, or (c) both an E2F regulator and an E1A regulator wherein the co-transfection step is performed in vitro.

81. The method of claim 80 comprising a step of transplanting the co-transfected glial cell(s) into an animal, wherein the animal is either human or non-human.

82. The method of claim 81 wherein the glial cell is a glioma cell.

83. A method for integrating DNA encoding a desired protein into a glial cell, the method comprising co-transfecting a glial cell with DNA encoding a desired protein and DNA encoding either (a) an E2F regulator, (b) an E1A regulator, or (c) both an E2F regulator and an E1A regulator wherein the co-transfection step is performed in vivo in an animal, the animal being either human or non-human.

84. The method of claim 83 wherein the DNA is introduced by injection into the brain or central nervous system of the animal.

85. The method of claim 83 wherein the DNA is introduced by injection into or near the peripheral nervous system of the animal.

REMARKS

Claims 20, 22-27, 29-36, 50-51 and 53-61 were allowed in the parent application and new claims 62-85 are added by this Amendment.

In view of the foregoing, it is submitted that this application is in condition for allowance. Favorable consideration and prompt allowance of the application are respectfully requested.

The Examiner is invited to telephone the undersigned if the Examiner believes it would be useful to advance prosecution.

Respectfully submitted,

Curtis B. Herbert

Curtis B. Herbert, Ph.D.
Registration No. 45,443

Customer No. 24113
Patterson, Thuente, Skaar & Christensen, P.A.
4800 IDS Center
80 South 8th Street
Minneapolis, Minnesota 55402-2100
Telephone: (612) 349-3008

Please grant any extension of time necessary for entry; charge any fee due to Deposit Account No. 16-0631.

CERTIFICATE OF EXPRESS MAIL

"Express Mail" mailing label number EV011653388US. Date of Deposit: January 25, 2002. I hereby certify that this paper is being deposited with the United States Postal Service "Express Mail Post Office to Addressee" service under 37 C.F.R. § 1.10 on the date indicated above and is addressed to the Assistant Commissioner for Patents, Washington, D.C. 20231.

Jeanne Truman
Name of Person Making Deposit

Jeanne Truman
Signature

ATTACHMENT
REDLINED AMENDMENT

Claims As Amended

Claims 20, 22-27, 29-36, 50-51 and 53-61 were allowed in the parent application.

Please add new claims 62-85 as follows:

--62. A method for inducing nucleic acid synthesis in a glial cell comprising:

obtaining at least one vector comprising nucleic acid encoding a desired protein and an E2F regulator or an E1A regulator, or both an E2F regulator and an E1A regulator.

63. A method as in claim 62, wherein the vector(s) are associated with immunoliposomes.

64. A method as in claim 62 wherein the vector(s) comprise pRcCMV.

65. A method as in claim 64, wherein the vector(s) comprise the E2F regulator.

66. A method as in claim 64, wherein the vector(s) comprise the E2F2 regulator.

67. A method as in claim 64, wherein the vector(s) comprise the E1A regulator.

68. A method for integrating DNA encoding a desired protein in a glial cell comprising:

obtaining a vector comprising nucleic acid encoding an E2F regulator , an E1A regulator, or both an E2F regulator and an E1A regulator, wherein the vector can be used to express the DNA encoding a desired protein in a glial cell;

obtaining DNA encoding a desired protein; and

cotransfecting a glial cell with the vector and the DNA encoding the desired protein such that the DNA encoding the desired protein is integrated in the glial cell and the desired protein is produced.

69. A method as in claim 68, wherein the vector is included in immunoliposomes.

70. A method as in claim 68, wherein the desired protein is a neurotrophic factor.

71. A method as in claim 68, wherein the desired protein is retinoblastoma.

72. A method as in claim 68, wherein the vector comprises nucleic acid encoding both an E2F regulator and an E1A regulator.

73. A method as in claim 68, wherein the vector comprises nucleic acid encoding E2F regulator.

74. A method as in claim 68, wherein the vector comprises nucleic acid encoding E2F1 regulator.

75. A method as in claim 68, wherein the vector comprises nucleic acid encoding E1A regulator.

76. A method as in claim 68, wherein the desired protein is retinoblastoma.

77. A method as in claim 76, wherein the glial cell is a glioma.

78. An improved method of inducing a glial cell to express DNA encoding a desired protein of the type wherein the DNA encoding the desired protein is introduced into the glial cell, the improvement comprising:

cotransfecting the DNA encoding the desired protein with nucleic acids encoding at least one of the members of the group consisting of E2F and E1A.

79. The method of claim 78 wherein the E2F is chosen from the group consisting of E2F1, E2F2, and E2F3.

80. A method for integrating DNA encoding a desired protein into a glial cell, the method comprising co-transfecting a glial cell with DNA encoding a desired protein and DNA encoding either (a) an E2F regulator, (b) an E1A regulator, or (c) both an E2F regulator and an E1A regulator wherein the co-transfection step is performed in vitro.

81. The method of claim 80 comprising a step of transplanting the co-transfected glial cell(s) into an animal, wherein the animal is either human or non-human.

82. The method of claim 81 wherein the glial cell is a glioma cell.

83. A method for integrating DNA encoding a desired protein into a glial cell, the method comprising co-transfecting a glial cell with DNA encoding a desired protein and DNA encoding either (a) an E2F regulator, (b) an E1A regulator, or (c) both an E2F regulator and an E1A regulator wherein the co-transfection step is performed in vivo in an animal, the animal being either human or non-human.

84. The method of claim 83 wherein the DNA is introduced by injection into the brain or central nervous system of the animal.

85. The method of claim 83 wherein the DNA is introduced by injection into or near the peripheral nervous system of the animal. --